

Attorney Docket No.: T4903.CIP (UT-0003)
Inventors: Rao and Majtaba
Serial No.: 09/073,881
Filing Date: May 6, 1998
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In the claims:

Please cancel claim 7 without prejudice.

Please amend the following claims:

1. (amended) A method for generating mammalian neural crest stem cells comprising:

Sub D1) (a) isolating a pure, homogeneous population of mammalian neuroepithelial stem cells derived from the neural tube from a mammalian embryo at a stage of embryonic development after closure of the neural tube by: D

(i) removing a sample of neural tube tissue from a mammal at a stage of embryonic development after closure of the neural tube;

(ii) dissociating cells comprising the sample of neural tube tissue removed from the mammal; and

(iii) plating the dissociated cells in feeder-independent culture on a substratum and in a media comprising fibroblast growth factor and chick embryo extract; and

(b) inducing the isolated, pure, homogeneous population of neuroepithelial stem cells to differentiate *in vitro* by replating the isolated, pure, homogeneous population of neuroepithelial stem cells on laminin-coated substrate, withdrawing fibroblast growth factor or chick embryo extract from the isolated, pure, homogeneous

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SUB D1
C17
population of neuroepithelial stem cells, or adding a dorsalizing agent to the isolated, pure, homogeneous population of neuroepithelial stem cells, thereby generating said neural crest stem cells.

C2
6. (amended) The method of claim 1 wherein said inducing comprises withdrawing FGF.

Please add the following new claim:

SUB D3
C3
--15. A method for generating rat neural crest stem cells comprising:

(a) isolating a pure, homogeneous population of rat neuroepithelial stem cells derived from the neural tube from a rat embryo at a stage of embryonic development after closure of the neural tube by:

(i), removing a sample of neural tube tissue from a rat at a stage of embryonic development after closure of the neural tube;

(ii) dissociating cells comprising the sample of neural tube tissue removed from the rat; and

(iii) plating the dissociated cells in feeder-independent culture on a substratum and in a media comprising fibroblast growth factor and chick embryo extract; and